

Remarks

The Office Action indicates that claims 5 and 6 contain allowable subject matter. These claims have been rewritten in independent form to place them in condition for allowance. In doing so several corrections to claim 1 were made. First, the word "informed" in claim 1 was changed to "formed" to correct a typographical error. Second, the section 112 issue in connection with "seamless" was addressed by clarifying where the seamless joints are located. These changes do not add new matter and merely clarify the original claimed subject matter. Claims 5 and 6 should be in condition for allowance.

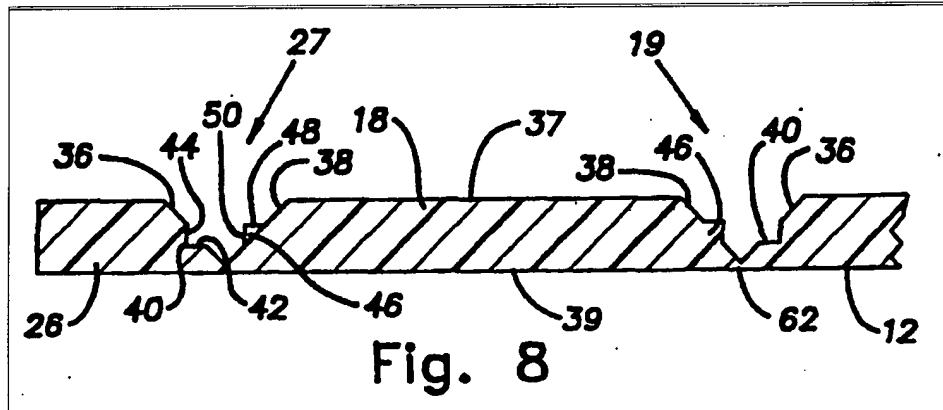
Claim 1 was rejected as anticipated by Moran and as obvious in view of Kardell as modified by Brink. Claim 1 has been amended and now requires that the force transmitting surfaces transmit both upward and downward vertical forces. The claimed structure relieves the resilient, flexible material from carrying vertical loads in both directions.

When a shipping container is loaded with goods and then lifted by the sidewalls, the bottom "hangs" from the sidewalls, and the weight of the bottom and of the goods in the container is transmitted through the hinges. When shipping containers are stacked, the hinges can be subjected to compressive loads from the weight of the items above. These loads can lead to premature failure of flexible hinge material. To avoid this problem, some collapsible shipping containers are made with hinges that are rigid enough to support the loads. This often results in hinges with small cavities between moving parts that can collect dirt and germs, making the containers difficult to clean and/or sanitize before reuse.

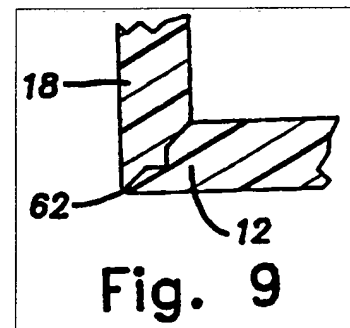
The structure claimed in claim 1 overcomes these problems. The force transmitting surfaces on the walls and bottom transmit vertical loads in both directions, unloading the flexible hinge material from that duty. The structure claimed is not shown in any of the prior art relied on in the Office Action. Moreover, the prior art does not

address the problem of relieving up and down vertical loads on flexible material hinges or achieve the result of a strong, collapsible shipping container that is easily cleaned.

Moran does not have all the elements of claim 1, and so cannot anticipate claim 1. First of all, Moran shows an electrical component box, not a flexible, collapsible shipping container. Moran lacks force transmitting surfaces on the walls and bottom that transmit upward **and** downward vertical forces between the walls and the bottom when the walls are in the erect position and thereby limit the extent to which said forces are transmitted between the walls and bottom through the hinges as required by claim 1.



Moran's Figure 8 shows the bottom 12 and sidewall 18 before folding. Note the thin hinge area 62. Figure 9 shows the bottom 12 and side wall 18 after the box has been erected. While the 45° surfaces and the step surfaces in the middle of them serve to transmit downward forces from the wall to the bottom without stressing the hinge 62, if the forces are applied in the opposite direction, all the weight is supported by the hinge 62. If the Moran box is



oriented with its opening facing up and held by the wall 18, the bottom 12 simply hangs from the wall, supported only by the hinge. Any load on the box bottom (i.e., the box's contents) would also be transmitted through the hinges. Moran has no surfaces on the walls and bottom that limit vertical forces both up and down from being transmitted

transmitted through the hinges. Accordingly, the anticipation rejection based on Moran should be withdrawn.

The obviousness rejection of Claim 1 also cannot be sustained. Neither of the references connects its bottom to the sidewalls other than by transmitting loads through the hinges. The figures referred to in the Kardell patent show hinge various elements that can be used in the Kardell container. But Figure 1 shows the assembly, whether using the Figure 19 or 20 hinge elements or the ones shown in Figures 2-4. These hinge elements are the only things connecting the bottom to the sidewalls in Kardell.

Claim 1 calls for force transmitting surfaces on the walls and bottom that transmit upward and downward forces between the walls and bottom when the walls are in the erect position and thereby limit the extent to which said forces are transmitted between the walls and bottom through the hinges. Since Kardell connects the walls to the bottom only through the hinges, Kardell cannot suggest the claim element noted above. Brink has beveled edges that conceivably transmit downward loads imposed on the walls to the bottom, but when an upward load is imposed on the walls, the bottom hangs from the hinges, and this means that the weight of the bottom and anything resting on the bottom must be transmitted through the hinges, precisely a circumstance that is avoided by the claimed construction. Accordingly, no combination of Brinks and Kardell can render claim 1 obvious.

Claims 2, 3, and 10 have been rejected over the Kardell/Brinks combination discussed above, and further in view of Clark et al. Clark et al. cannot cure the deficiency of the Kardell/Brinks combination because they do not show hinges that are made of a unitary piece of resilient, flexible material fused to the walls and bottom as required by all the claims.

Claims 2, 3, 7-9 and 10 are rejected as obvious in view of Brink as modified by Clark et al. As discussed above in connection with claim 1, Brink does not have force transmitting surfaces that work so that when the container is lifted the loads of and on the bottom are transmitted to the walls other than through the hinges. Yet this is required by the rejected claims. Clark et al. show vertically staggered hinges, but do not

make up the deficiencies of Brink. Accordingly, these claims are not suggested by the art and are in condition for allowance.

Claims 11 and 12 are rejected as obvious in view of either Brinks or Moran. The deficiencies of Brinks have been pointed out and need not be repeated. They apply equally to these claims. Moran also suffers from this same deficiency as discussed in connection with claim 1. In view of the deficiencies of the references relied upon to show the claimed structure or even to suggest it, the rejection cannot be sustained. Claims 11 and 12 are in condition for allowance.

The amendments to claim 1 have also addressed the Section 112 rejection.

The applicant believes that all the claims currently pending are in condition for allowance.

Conclusion

In view of the foregoing, the present application is believed to be in a condition for allowance and an early indication to that effect is requested. If the application is not believed to be in condition for allowance, the Examiner is asked to telephone the undersigned to resolve any remaining issues.

Should a petition for an Extension of Time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary) petition is hereby made, and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988, under Attorney Docket No. CREP P0154US.

Respectfully submitted,

RENNER, OTTO, BOISSELLE & SKLAR, L.L.P.



Gordon D. Kinder
Reg. No. 29,081

1621 Euclid Avenue
Nineteenth Floor
Cleveland, Ohio 44115
(216) 621-1113